Proposed Amendment between California Energy Commission and San Diego Gas & Electric Company

Title: Borrego Springs Microgrid Demonstration Project
Amount: $0.00
Term: 12 months
Contact: Jamie Patterson
Committee Meeting: 7/20/2011

Recommendation

Approve this no-cost time time extension amendment with San Diego Gas & Electric Company for 12 months to align the contract term with an associated US Department of Energy (DOE) American Recovery and Reinvestment Act (ARRA) contract. Staff recommends placing this item on the discussion agenda of the Commission Business Meeting.

Issue

The San Diego Gas & Electric Company received a DOE ARRA award for their microgrid project that is co-funded by the PIER program. The DOE contract term is longer than the term of the Commission contract. The terms of both contracts need to align to have the Commission project final report include the DOE microgrid funded work.

Technological, and regulatory forces have created a nexus of opportunity for utilities and customers to invest in on-site distributed generation, renewable resources and smart grid technologies to develop new innovative energy systems that can operate in parallel with the grid or in an intentional island mode. These innovative systems or microgrids are part of a strategic smart grid tactic that is now ready to be demonstrated in California on a real world utility system. This project will demonstrate how these smart grid applications support integrating renewable resources and advanced technologies that support the environmental goals of AB 32.

Background

This project is being worked in conjunction with DOE ARRA contract DE-FC26-08NT02870. It is a $15.2 million dollar project with $4.1 million provided by SDG&E, $7.5 million from DOE, $800,000 from other partners and $2.8 million from the Commission.

Proposed Work

This research project builds on previous PIER research on smart grids that has developed the technology and demonstrated that small test scale smart grids can operate safely. This project will take the research to the next step and demonstrate how smart grid technologies can support and enhance the coordination and management of a portfolio of integrated distributed resources. The research will evaluate every day operations while optimizing performance in peak and non-peak periods. AMI will be deployed at all customer sites for this demonstration and load shifting and storage capabilities will be observed. This research will also offer the opportunity to evaluate how well customers accept and utilize these new technologies.

Justification and Goals

This project "[will develop, and help bring to market] advanced electricity technologies that reduce or eliminate consumption of water or other finite resources, increase use of renewable energy resources, or

improve transmission or distribution of electricity generated from renewable energy resources" (Public Resources Code 25620.1.(b)(4)), (Chapter 512, Statutes of 2006)).

This will be accomplished by:

- Demonstrate technologies that will accelerate the transformation of the distribution grid into an intelligent and sustainable network. 2007 IEPR